DSMA ATCON LTD

ENGINEERS AND ADVANCED TECHNOLOGY CONSULTANTS

4195 DUNDAS STREET WEST TORONTO, ONTARIO MBX 1Y4 TELEPHONE (416) 239-3011 TELEX 06-984847

September 13, 1984

Mr. D. Guthrie Polk County Health Department P.O. Box 1480 WINTERHAVEN, Florida 33882 U.S.A.

Dear Mr. Guthrie:

As you know, we are in the planning stages of a project to demonstrate to HUD and EPA the construction of radon resistant foundations. Three house sites on reclaimed phosphate land has been proposed in an uncompleted U.S. Steel development to the west of Bartow, and appear to be suitable in that the gamma exposure rate over the lots is about 10 $\mu R/h$, suggesting about 3 pCi/g Ra. To confirm that these sites are really located on reclaimed lands, and not merely upon a thin surface layer of debris material, we need core samples to a depth of 6 feet together with soil radium concentration measurements with depth.

Your group carried out a study similar to what is needed here at the "Villas" in Lakeland back in 1980. I believe this consisted of total radium measurements on 4 composited surface soil samples from each lot plus 1 foot segments of a 6 foot core drilled at the centre of each proposed house site. Radon production rate measurements were made on the 0-1 foot core samples, and the radon flux rate was measured twice at 4 locations on each site using charcoal cannisters. A gamma survey was also carried out over each lot.

Could you please quote me the price to carry out such a study today, on the 3 adjacent building lots.

As you have a good deal of experience in this field, could you also suggest what additional tests might be performed, and indicate their price? For example, how much would a second core sample on each lot increase the cost? Could the core holes be 'gamma-logged'?

Regards,

A.G. Scott

AGS:dgt

10517184